(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 30 September 2004 (30.09.2004)

PCT

(10) International Publication Number WO 2004/083460 A1

(51) International Patent Classification⁷:

C12Q 1/68

(21) International Application Number:

PCT/FI2003/000216

(22) International Filing Date: 20 March 2003 (20.03.2003)

(25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): CSI BIOTECH OY [FI/FI]; Tapionkatu 4 B, FIN-40100 Jyväskylä (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JANSSON, Kristian [FI/FI]; Aumakatu 3, FIN-40320 Jyväskylä (FI). JANSSON, Vuokko [FI/FI]; Aumakatu 3, FIN-40320 Jyväskylä (FI).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AMP LIGATION ASSAY (ALA)

(57) Abstract: The present invention relates to a method, reagent and kit for detecting ligase-catalyzed joining of nucleic acid ends, and any analyte related thereto, such as a ligase, or a substrate or cofactor thereof. More specifically, the invention relates to a method and kit for detecting the presence or amount of a target nucleic acid sequence in a sample. In the inventive method, ligase-catalyzed joining of nucleic acid ends is detected by detecting the AMP released thereby, preferably by using enzymatic means that comprises luciferase and luciferin.

